ENERGY STAR®

Energy Efficiency Testing

Pleasanton Open House – October 26, 2012

2010 APPLIANCE EFFICIENCY REGULATIONS

CALIFORNIA ENERGY COMMISSION

www.tuv.com ID:0000012345 TÜVRheinland®

Verified Energy Performance

Énergie Performance Vérifiér

CE

ErP Directive 2009/125/EC

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General Introduction

What is ENERGY STAR® ?

ENERGY STAR is a joint program of the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE) aiming to protect the environment through energy efficient products and practices.

Details on proposed new scheme under
www.energystar.gov/testingandverification

Note:
The ENERGY STAR® logos are here shown for training purposes only.

Neither accepted Certification Bodies nor Laboratories are permitted to use ENERGY STAR® Logos or marks in any of their marketing materials or upon anything that they distribute. Use of the Mark by non-partners (including recognized CBs, Abs and Labs) will be treated as a logo violation by the Agency (EPA)

History

1992-2010

Self-Certification

- Partner tests product, confirm compliance to ENERGY STAR specification and label with the ENERGY STAR
- Partner submits test data to EPA for product qualification
- EPA reviews and lists product if found compliant
- EPA verified energy performance on select models

History

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Starting in 2011

Third-Party Certification

- Partner has product tested in EPA recognized lab prior to labeling
- Test data is submitted to an EPA recognized Certification Body (CB) to certify all program and specification requirements have been met
- CB authorizes labeling
- CB uploads product certified data to ENERGY STAR website
- CB conducts verification and challenges testing after qualification
- Significant product modifications require retest and recertification

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History

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Why the change to Third-Party Certification?

"Energy Star is for the most part a self-certification program vulnerable to fraud and abuse, says the nine-month study (begun in June 2009) by GAO"

"A Congressional report stated the Energy Star program approved 15 bogus products, including a gas-powered alarm clock and an air purifier that looked like a space heater with a feather duster on top…"

Scope of ENERGY STAR

Energy Star Product Groups

Appliances
- Clothes Washers
- Dehumidifiers
- Dishwashers
- Freezers
- Refrigerators
- Room Air Cleaners & Purifiers
- Water Coolers

Building Products
- Seal and Insulate
- Roof Products
- Windows, Doors and Skylights

Computers & Electronics
- Audio/Video
- Battery Chargers
- Computers / Servers
- Cordless Phones (Telephony)
- Displays
- Imaging Equipment
- Set-top Boxes & Cable Boxes
- Televisions
- Uninterruptible Power Supplys

Heating & Cooling
- Air Conditioning, Central
- Air Conditioning, Room
- Boilers
- Dehumidifiers
- Fans, Ventilating
- Furnaces
- Heat pumps, Air Source
- Heat pumps, Geothermal
- Home Sealing – Insulation & Air Sealing
- Mini–Split Heating & Cooling
- Room Air Cleaners & Purifiers

Lighting and Fans
- Decorative Light Strings
- Fans, Ceiling
- Light Bulbs
- Light Fixtures

Plumbing
- Water Heater, Gas Condensing
- Water Heater, Heat Pump
- Water Heater, High Efficiency Gas Storage
- Water Heater, Solar
- Water Heater, Whole Home Gas Tankless

In Scope of TUV Rheinland of North America CB Accreditation / Lab recognition

-> in this context 'CB' = EPA ES Certification Body, not to be confused with IECEE Certification Body

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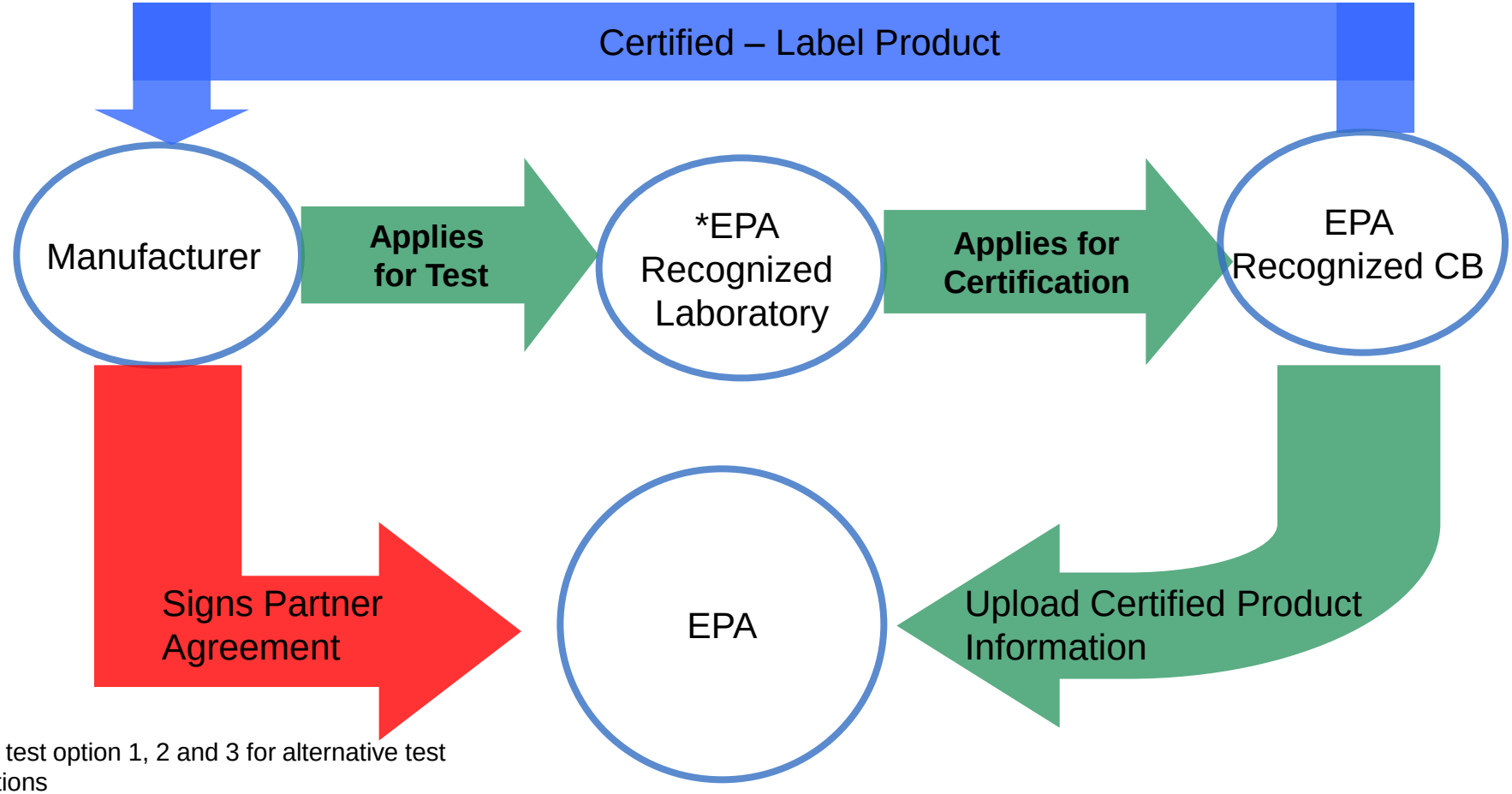
Basic Process



*see test option 1, 2 and 3 for alternative test locations

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<u>Witnessed Manufacturer's Testing Laboratory (WMTL)</u> - A manufacturer's laboratory being used to test specified products of which the manufacturer has production responsibility. The CB witnesses all tests done by a manufacturer's laboratory which uses its own test equipment.

<u>Basic Steps:</u>

- Manufacturer applies to the **<u>CB</u>** to become a WMTL
- The CB evaluates suitability of laboratory to ISO/IEC 17025 cl. 5.2-5.8 prior to witnessing testing
- The CB will report recognized WMTL to EPA for registration purposes
- Upon successful evaluation of the WMTL all subsequent test shall be witnessed by the CB

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Test Option 2 – Supervised Manufacturer's Testing

Supervised Manufacturer's Testing Laboratory (SMTL) - A manufacturer's laboratory being used to test products for which the manufacturer has production responsibility, under the supervision of a CB. The manufacturer's laboratory uses its own personnel and test equipment and takes responsibility for and signs the test data. Some part of each agreed testing program must be witnessed by the CB on site.

Basic Steps:

- Manufacturer applies to the **CB** to become a SMTL
- The CB evaluates suitability of laboratory to ISO/IEC 17025 prior to witnessing testing or accepting test data
- EPA is very particular with Impartiality of SMTs. Be sure to have ISO/IEC 17025, cl. 4.1.5 fully covered!
- The CB will report accepted SMTLs to EPA for registration purposes
- Upon successful evaluation of the SMTL some part of each agreed testing program must be witnessed by the CB on site. Test data not witnessed can only be accepted after a confidence building period between the CB and SMT.

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Test Option 3 – 1st Party Laboratory Recognition

1st Party Laboratory - Are accredited by EPA-recognized Accreditation Bodies and owned by or associated with an ENERGY STAR Manufacturing Partner that uses the lab to test its products.

Basic Steps:

- 1st Party Lab applies to a EPA recognized Accreditation Body (AB) for the desired ENERGY STAR Specifications
- The AB audits the laboratory to ISO/IEC 17025. Upon successful audit the AB will issue a formal accreditation
- 1st Party Lab applies to EPA for recognition based upon the AB accreditation.
- After EPA recognition the 1st Party laboratory may submit test data directly to the CB for certification with no laboratory oversight of the laboratory

First-party labs without accreditation should contact an EPA-recognized CB to inquire about enrolling in an W/SMTL program

Measurements

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Example: Audio / Video Equipment

- **On Mode:**
  - **Active state:** product is performing a primary function.
  - **Idle state:** product is not performing a primary function and no contentis actively being delivered to the end-user..
- **Sleep Mode:** defined as the time when the product is connected to a power source, produces neither sound nor picture, neither transmits nor receives program information and/or data.
- **Off Mode:** product is connected to a mains power source, is not providing any On mode or Sleep mode functions, and cannot be switched into any other mode.
- **Standby Mode:** the product is connected to the power source, is possibly producing status information or time readout, is waiting to be switched to the active mode, and produces/records no video or audio signal.

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Measurements

ENERGY STAR®

Example: Audio / Video Equipment

Setup

1. Set up according to the instructions and Power on.
2. Perform initial system configuration, as applicable. a) Ensure that all audio tone controls are set to mid-level. b) Ensure that UUT components (display brightness, etc.) are in their as-shipped configuration.
3. Connect to the signal source(s) as specified [-> Audio Sources, Video Sources, etc.]
4. Let the UUT sit for at least 15 minutes, or until the unit has completed initialization and is ready for use.
5. Measure and record the AC mains input voltage and frequency.
6. Measure and record the test room ambient temperature

Measurements

ENERGY STAR®

Example: Audio / Video Equipment (all products)

***Auto Power Down (APD) Function* :**

- Set APD timing to the default value
- Stop off primary function
- Measure and record the average power consumption before APD over a 2-minute period.
- Allow the UUT to automatically power-down. Record the time elapsed before the APD event. Verify that the elapsed time is within 5 minutes of the default APD timing value
- Verify that the device is in the expected APD low-power state.
- Measure and record the average power consumption after APD over a 2-minute period

Idle State

- Configure the UUT in a typical Sleep or Off mode operational state.
- bring the unit into an On mode operational state, such that no active content is playing.
- Wait at *least 60 seconds* to allow the UUT to achieve stability.
- Measure and record the average power consumption over a 2-minute period.

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Measurements

Example: Audio / Video Equipment (all products)

***Sleep Mode*:**

- Configure the UUT in a typical On mode operational state.
- Press the Power button to bring the unit into a Sleep mode low-power operational state.
- Measure and record the average power consumption over a 2-minute period.

***Standby Mode*:**

- Power on all test equipment and properly adjust operation range.
- Connect the test equipment and unit under test.
- Check for normal operation of the test unit and leave all customer adjustment to factory default settings.
- Set the power meter current range. The full-scale value selected multiplied by the crest factor rating (Ipeak/Irms) of the meter must be greater than the peak current reading from the oscilloscope.
- After the unit under test reaches operating temperature and the readings on the power meter stabilize (approximately 90 minutes), take the true power reading in watts from the power meter.

Measurements

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Example: Audio / Video Equipment (<u>all products</u>)

***[cont. Standby Mode]*:**

- Record the test conditions and test data. The measurement time shall be sufficiently long to measure the correct average value to within a +10% - 0% error. If the device has different standby modes that can be manually selected, the measurement shall be taken with the device in the most energy consumptive mode. If the modes are cycled through automatically, the measurement time shall be long enough to obtain a true average that includes all modes.

Measurements

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Example: Audio / Video Equipment

Different Test Procedures for

- Optical Disc Players
  - => Video Playback Test ***)**
  - => Video Recording Test ***)**
  - => Audio Playback Test ***)**
  - => Audio Recording Test ***)**
- Full Spectrum Audio Amplifiers => Active State Test
- Limited-bandwidth Audio Amplifiers => Active State Test

*) = […average power consumption]

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Measurements

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Example: Audio / Video Equipment

Power Consumption Limits:

- Consumer AV Products: 1W (at *Standby Mode)*
- All Products: 1W *(at Sleep Mode)*
- High Resolution Display (> 480x234 pixel resolution and 5 inches diagonal screen size): *P = 6*(R) + 0.05*(A) + 3* *(at On Mode)*
  *Where: R = Display resolution (x * y) in megapixels A = Viewable*
- *Screen area in square inch* In-use Networking / Control Protocol: 1W *(at On Mode)*
- Standard Definition (SD) Source Optical Disc Player/Recorder: TBD *(at On Mode)*
- SD Source to HD Output "Upconversion" Optical Disc Player/Recorder: TBD *(at On Mode)*
- High Definition (HD) Source Optical Disc Player/Recorder: TBD *(at On Mode)*

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Measurements

Measurement Uncertainty

Instrument Accuracy

Spec acc. User Manual:

- Current Ranges
  = internal shunt **[A]**: 100, 25, 6.25, 1.6, 0.4, **0.1**

  = external shunt (not shown in manual) **[mA]**: 1250, 313, 78, **20, 5, 1**

- Voltage Ranges [Vpk]: 900, 215, 46, 10
- Accuracy (AC) = 0.2%*Read + 0.1%*Range + 4mW + (0.05/PF*f/1000)% of reading

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Measurements

Instrument Accuracy

Example: Reading = 0.5W @ 240V => I = 2mA, f=50Hz, (with PF=1)

Accuracy (AC) = 0.2%*Read + 0.1%*Range + 4mW + (0.05/PF*f/1000)%

Accuracy (0.5W) without Breakout Box (internal shunt)

$$= 0.2\% * 0.5W + 0.1\% * 0.1A * 900V + 0.004W + \left(\frac{0.05}{1} * \frac{50}{1000} \right) / 100 * 0.5W$$

$$= 0.001W + 0.09W + 0.004W + 0.0001W = \underline{\underline{0.096W \approx 19.2\%}}$$

Instrument Setup not suitable for IEC 62301

Power Measurement Range:

$$Range_{Power} = Range_{Voltage} * Range_{Current}$$

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Measurements

Instrument Accuracy

Example: Reading = 0.5W @ 240V
=> I = 2mA, f=50Hz, (with PF=1)

Accuracy (0.5W) with Breakout Box (external shunt)

$$= 0.2\% * 0.5W + 0.1\% * 0.005A * 900V + 0.004W + \left(\frac{0.05}{1} * \frac{50}{1000}\right) / 100 * 0.5W$$

$$= 0.001W + 0.005W + 0.004W + 0.0001W = \underline{\underline{0.011W \approx 1.9\%}}$$

Instrument Setup suitable for IEC 62301

Conclusion:
Also correct Instrument can deliver wrong results

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What does the CB review for certification?

- ✓Test Laboratory EPA recognized (Third party, WMTL, SMTL or 1st Party)
- ✓Test report/Test Data – Correct conclusions, results and test methods
- ✓Measurement and Testing Instrument list with calibration dates
- ✓Declaration about difference of construction – Family Models (as applicable)
- ✓Photo documentation, catalog or picture of the product
- ✓User manual / Instructions comply with ENERGY STAR specification and program requirements
- ✓Valid ENERGY STAR Partner ID
- ✓ENERGY STAR® Certification submission form is complete and accurate
- ✓ENERGY STAR® Certification Body Agreement

ENERGY STAR Process

EPA data submission

- Substantial product details are required to complete the submission form
- CB uploads information to EPA website
  [XLS submission forms are currently in process of being replaced by an XML-based qualified product exchange (QPX) system
- ENERGY STAR qualified products will not be displayed on the ENERGY STAR website until the “date available on market” date is reached
- The qualified product list on the ENERGY STAR website is only updated on the 1st and 15th of each month *[using the older XLS submission forms for some product categories not transferred to XLM yet]*

Verification Testing

What is Verification Testing?

Verification testing is a Partner funded program, which ensures products on the market continue to meet all product performance parameters as described in the relevant ENERGY STAR product specification

What is subject to Verification Testing?

- Annually 10% of certified products on the U.S. market in each product category and subtype
  - [e.g.] Category: Imaging Products
    - Subtypes: copiers, digital duplicators, fax machines, mailing machines, multi-function devices, printers, scanners

- All members of a certified product family are subject to verification testing
  - A product with multiple brands is treated as one product

Verification Testing

Product selection

- All unique models on EPA's qualified products lists (QPLs) - *products currently available for sale in the US* -are candidates for verification testing

- At least 50% of models to be tested are randomly selected from the certification database of the CB
- The remaining models shall be comprised of referrals provided by the EPA, and models selected in consideration of the following factors:
  - Product classes from ENERGY STAR partners for which previous models failed verification testing
  - Referrals from third parties such as consumers, consumer groups or regulatory agencies regarding the accuracy of ratings
  - Models with high sales volumes if this data is available

Verification Testing

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Product procurement

- The unit(s) for verification testing shall be procured or obtained by prioritizing the source of those units in the following order (from most to least favored)
  - Off-the-shelf (i.e., from the open market);
  - Warehouse (i.e., from a storage depot or distributor); or
  - Off-the-line (i.e., from the manufacturing facility).

Notes:
1) Off-the-line testing is only appropriate where pulling products from the shelf or from a warehouse is not feasible. Examples include where the selected product is prohibitively expensive to purchase and/or transport, is made-to-order, or is otherwise unavailable through normal retail channels.
2) The Energy Star partner shall not be allowed to choose the testing sample.

ENERGY STAR Process

Test Location

Verification testing shall be performed at an EPA-recognized, third-party laboratory; or,

By exception, the verification testing may be performed at an EPA-recognized, first-party laboratory provided that qualified CB personnel witness the test.

Pass/Fail Criteria

PASS

$$Consumption_{Test} \leq ESTAR\ consumption\ specification$$

$$Efficiency_{Test} \geq ESTAR\ efficiency\ specification$$

Challenge Testing

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Challenge Testing Initiation

The challenge testing will not be initiated and the challenged not notified until:

- Confirmed identification of the challenged model number; and,
- Confirmed identification of the challenged parameters and the basis for the challenge. This basis may be but is not limited to marketing material that claims better performance than the data the CB has on record, or the results from a product test the challenger performs on its own
- Confirm the challenge valid based on factors such as information provided by challenger, comparing challenged parameter with certification data and other factors relevant to the product performance requirements of the relevant ENERGY STAR program requirements

Other Information

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http://www.energystar.gov/index.cfm?c=third_party_certification.tpc_index

PRODUCTS | HOME IMPROVEMENT | NEW HOMES | BUILDINGS & PLANTS | PARTNER RESOURCES

Partner Resources

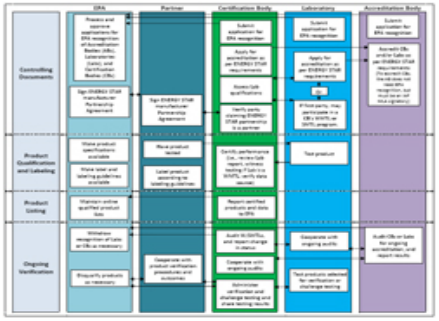
- Manufacturers
- Retailers
- New Home Industry
- Utilities/EEPS
- Service & Product Providers
- Buildings & Plants
- Small Businesses
- Congregations
- For Contractors
- For Federal Agencies

Join ENERGY STAR

Home > Partner Resources > Third-Party Certification

Third-Party Certification

To ensure consumer confidence in the ENERGY STAR label and to protect the investment of ENERGY STAR manufacturing partners, EPA requires all ENERGY STAR products to be third-party certified. This requirement includes product testing in an EPA-recognized laboratory that meets international standards for quality and competency, review of the product by an EPA-recognized certification body to determine ENERGY STAR eligibility, and ongoing testing to ensure that products continue to deliver superior energy efficiency and performance. The specific roles of these third-party organizations are described in the ENERGY STAR Process Flow Diagram (97KB).



In addition to the specific conditions and criteria for these organizations, EPA also publishes directives to clarify and elaborate on the responsibilities of EPA-recognized accreditation bodies (ABs), certification bodies (CBs), and laboratories.

ENERGY STAR manufacturing partners must have products tested in EPA-recognized laboratories and certified by an EPA-recognized CB prior to labeling. All certified products will also be subject to ongoing verification testing and challenge testing as described in the Conditions and Criteria for Recognition of Certification Bodies (60KB), as well as directives 2011-04 (80KB) and 2011-06 (52KB). As part of EPA's activities to maintain the integrity of ENERGY STAR, products that fail to meet ENERGY STAR requirements will be subject to EPA's disqualification procedures (59KB).

Manufacturers who label products as ENERGY STAR without obtaining third-party certification put the integrity of the program at risk and undermine the investment of those who honor their commitment. Companies found to be labeling products without obtaining the necessary certification will be required to remove the label from these products and institute other corrective actions as appropriate.

Information on the development of the ENERGY STAR third-party certification procedures have been archived.

EPA-recognized Organizations

Third-Party Certification

- Third-Party Certification
- Guidance (Directives)
- Documentation (Archives)
- Accreditation Bodies Resources
- Laboratory Resources
- Certification Bodies Resources

Additional Resources

- Frequently Asked Questions
- Specifications
- Development of New and Revised Product Specifications

MESA Login

Username:

Password:

Sign In Forgot password?

Other Information

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Power Supply Requirements

- If the product uses an ***internal power supply***, the submittal must include a certificate of compliance issued by an EPA-recognized laboratory that covers the internal power supply, and the certification body must accept this certificate of compliance in lieu of a lab report.

- If the product uses an ***external power supply*** with integral fan cooling or multi-output external power supply (that is not covered by the International Efficiency Marking Protocol), the certification body may accept either a certificate of compliance from an EPA-recognized laboratory or a laboratory report that covers the external power supply.

- If the product uses an external power supply covered by the International Efficiency Marking Protocol, the certification body must obtain documentation, or affirmation from the test laboratory of visual inspection that confirms the external power supply is marked as Level V. The certification body must not require a full lab report or certificate of compliance from the manufacturer.

Note: On July 19, 2010 EPA announced to sunset the ES programs for EPSs and End-Use Products Using EPSs (details see next slide)

Other Information

Power Supply Requirements

EPA's sunset decision:

"…..
EPA will continue to recognize EPSs, End-Use Products Using EPSs and their manufacturers at www.energystar.gov until December 31, 2010.

- *Manufacturers must stop using the ENERGY STAR name and ENERGY STAR mark or EPS graphic in association with all products manufactured on or after December 31, 2010. (Qualified products manufactured before that date are allowed to carry the ENERGY STAR mark or EPS graphic on their packaging and product literature, as applicable. Retailers and distributors will be allowed to sell off their existing inventory.)*

- *No new promotional materials for EPSs and End-Use Products Using EPSs (printed and electronic) featuring the ENERGY STAR mark or EPS graphic may be produced after December 31, 2010. (Manufacturers are allowed to use up existing printed material, including packaging, in order to minimize waste.)*

- *To minimize the cost of labeling changes and be in compliance by December 31, 2010, manufacturers of EPSs and End-Use Products Using EPSs may remove ENERGY STAR references on websites or in other collateral materials as these materials are reprinted or changed in the coming months.*

…."

General Introduction

Canada Energy Efficiency Verification (EEV)

What **is the EEV mark ?**

The EEV mark indicates that the product meets the energy efficiency regulations of Canada, which is regulated by Natural Resources Canada (NRCan). A certification body must be accredited by the Standards Council of Canada (SCC).

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General Introduction

Why **the EEV mark ?**

Regulated energy-using products must bear an EEV mark before the product is sold or leased in Canada.

Who **is affected by the Regulations…?** ….a dealer who imports or ships a regulated energy-using product

What do the Regulations do?

✓define energy efficiency standards for prescribed products;
✓establish energy efficiency labeling (includes EEV);
✓prescribe reporting and importing requirements for a number of energy-using products.

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Regulated Products

- automatic ice-makers
- chillers
- ceiling fans and ceiling fan light kits
- clothes dryers & clothes washers (residential and commercial)
- compact fluorescent lamps – CFLs
- dehumidifiers
- dishwashers
- dry-type transformers
- electric motors, 1 to 200 HP (0.746 to 150 kW)
- electric ranges
- electric water heaters
- exit signs
- fluorescent lamp ballasts
- freezers
- gas boilers, -fireplaces, -furnaces, -ranges, -unit heaters, -water heaters
- general service lamps (fluorescent, incandescent reflector, ER and BR)
- ground- or water-source heat pumps
- integrated over/under washer-dryers
- internal water-loop heat pumps
- large air conditioners, heat pumps and condensing units
- oil-fired boilers, -furnaces, -water heaters
- packaged terminal air conditioners and heat pumps
- refrigerators, refrigerator-freezers and wine chillers
- refrigerated beverage vending machines
- room air conditioners
- self-contained commercial freezers, -refrigerator-freezers, -refrigerators
- single-package central air conditioners and heat pumps: single- and three-phase
- split-system central air conditioners and heat pumps: single- and three-phase
- snack and refrigerated beverage and vending machines
- traffic and pedestrian signal modules
- torchiere lamps

Pre-Publiction of Regulations Amending Canada's Energy Efficiency Regulations – Notice June 2010 (Amendment 11)

- standby for electronic products
  - compact audio products
  - TV and TV combination units (and reporting only of TV on mode)
  - video products
- external power supplies
- digital TV adaptors
- electric boilers
- portable air-conditioners
- single package vertical air-conditioners and heat pumps

In Scope of TUV Rheinland of North America Accreditation

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Regulated Products

2010 APPLIANCE EFFICIENCY REGULATIONS
CALIFORNIA ENERGY COMMISSION

- Refrigerators, Refrigerator-Freezers, and Freezers
- Air Conditioners
- Spot Air Conditioners, Evaporative Coolers, Ceiling Fans, Ceiling Fan Light Kits, Whole House Fans, Residential Exhaust Fans, and Dehumidifiers
- Gas and Oil Space Heaters and Electric Residential Boilers
- Water Heaters
- Pool Heaters, Portable Electric Spas, Residential Pool Pump and Motor Combinations, and Replacement Residential Pool Pump Motors
- Plumbing Fittings
- Plumbing Fixtures
- Fluorescent Lamp Ballasts
- Lamps
- Emergency Lighting
- Traffic Signal Modules and Traffic Signal Lamps
- Luminaires and Torchieres
- Dishwashers
- Clothes Washers
- Clothes Dryers
- Clothes Dryers
- Electric Motors
- Distribution Transformers
- Power Supplies
- Televisions, and Consumer Audio and Video Equipment
- Battery Charger Systems

In Scope of TUV Rheinland of North America CEC Lab approval program

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ErP Directive 2009/125/EC

Directive 2009/125/EC for ErP (Energy-related-Products), *previously EuP-Directive 2005/32/EC for 'Energy using Products'),* establishes a framework directive for the setting of eco-design requirements for all energy using products except in the transport sector. It also covers products outside the electrical area.

It is the first directive to cover a product's total life cycle:

- Raw Material Acquisition
- Manufacturing
- Transport and Trade
- **Use/ Maintenance**
- Reuse/ Recycling/ End of Life Treatment

ErP Directive 2009/125/EC

The directive 2009/125/EC is a recast of the EuP-Directive and is largely the same in content.
Same products are covered:

- Standby and Off Mode Consumption for Household and Office Equipment
- External Power Supplies
- Simple Set Top Boxes
- TVs
- Domestic Lighting
- Tertiary Lighting
- Domestic Cold Appliances
- Electric Motors 0.75 – 375kW
- Circulators

The process of introduction of implementing measures under the EuP directive will not be affected by the recast directive.
The levels to be met are specified in the regulations
For office equipment products such as PCs and monitors are generally in line with ENERGY STAR® requirements.

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[EPA Note dated 12/05/2011]

Dear ENERGY STAR® Office Equipment Stakeholder,

As many of you know, the United States and the European Union share a bilateral agreement on the ENERGY STAR program specific to Office Equipment. This agreement reflects the two regions' commitment to collaborating on and making use of harmonized ENERGY STAR requirements for Office Equipment. In place since 2000, the most recent renewal of the agreement is scheduled to expire in December 2011.

Recognizing the important value this agreement offers to our Office Equipment partners, EPA is writing today to share the good news that negotiation of the next five-year renewal of this agreement is now complete. On November 29, 2011, U.S. EPA Administrator Jackson and EU Energy Commissioner Oettinger initialed the agreement before being distributed to EU Member States for their concurrence. EPA expects this administrative process to be complete in the first half of 2012. The new agreement continues harmonization on computers, imaging equipment, displays, and servers and will be updated with enterprise storage, small network equipment, and uninterruptible power supplies as these ENERGY STAR specification development efforts are completed.

The success of this collaboration is extraordinary, and it is a testament to the continuing commitment of partners like you to develop and market energy efficient Office Equipment. Estimates show that in the last 5 years the U.S. ENERGY STAR program for Office Equipment resulted in savings of more than 223 TWh and energy bill savings of $22 billion. For the EU market, estimates show that in the last 3 years the EU ENERGY STAR Office Equipment program resulted in savings of more than 10 TWh and energy bill savings of 2 billion euros.

Thank you for your continued support of the ENERGY STAR program.

Thank You!

…..Questions?

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